General

Guideline Title

General assessment. In: II guidelines for perioperative evaluation.

Bibliographic Source(s)

Gualandro DM, Yu PC, Calderaro D, Marques AC, Pinho C, Caramelli B, et al. General assessment. In: II guidelines of perioperative evaluation. Arq Bras Cardiol. 2011;96(3 Suppl 1):4-7. [379 references]

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Committee on Perioperative Evaluation (CAPO), Brazilian Society of Cardiology. General approach to the patient. In: I guidelines for perioperative evaluation. Arq Bras Cardiol 2007;89(6):e175-86.

Recommendations

Major Recommendations

The definitions for levels of evidence (A-C) and classes of recommendation (I-III) are provided at the end of the "Major Recommendations" field.

See the original guideline document for details on performing patient history and physical examination.

Electrocardiogram (ECG)

Recommendations for requesting an ECG:

Degree of Recommendation I, Level of Evidence C

- Patients with a history and/or abnormalities on physical examination suggestive of cardiovascular disease
- Patients with a recent episode of ischemic chest pain or considered to be at high risk after algorithmic assessment or according to the assistant physician
- Patients with diabetes mellitus

Degree of Recommendation IIa, Level of Evidence C

- Obese patients
- All patients older than 40 years

Degree of Recommendation III, Level of Evidence C

- Routinely request an ECG for asymptomatic individuals who will be submitted to low-risk surgeries.

Chest X-ray

Recommendations for requesting a chest x-ray:

Degree of Recommendation I, Level of Evidence C

- Patients with a history or diagnostic tests suggestive of cardiorespiratory diseases

Degree of Recommendation IIa, Level of Evidence C

- Patients older than 40 years
- Medium to major surgeries, mainly intra-thoracic and intra-abdominal surgeries

Degree of Recommendation III, Level of Evidence C

- Routine in asymptomatic individuals

Laboratory Tests

Recommendations for requesting laboratory tests:

A. Full Blood Count
   Degree of Recommendation I, Level of Evidence C
   - History of anemia or other hematologic diseases or liver diseases
   - When anemia is suspected during physical examination or when chronic diseases associated with anemia are present
   - Moderate/high-risk surgeries if a need for transfusion is anticipated

   Degree of Recommendation IIa, Level of Evidence C
   - All patients older than 40 years

   Degree of Recommendation III, Level of Evidence C
   - Routine in asymptomatic individuals

B. Hemostasis/Coagulation Tests
   Degree of Recommendation I, Level of Evidence C
   - Patients on anticoagulation therapy
   - Patients with liver failure
   - Patients with coagulation disorders (history of bleeding)
   - Patients who will be submitted to intermediate or high-risk surgeries

   Degree of Recommendation III, Level of Evidence C
   - Routine in asymptomatic individuals

C. Determination of Serum Creatinine
   Degree of Recommendation I, Level of Evidence C
   - Patients with kidney disease, diabetes mellitus, hypertension, liver failure, or heart failure, and whose serum creatinine has not been determined in the last 12 months
   - Patients who will be submitted to intermediate or high-risk surgeries

   Degree of Recommendation IIa, Level of Evidence C
   - All patients older than 40 years

   Degree of Recommendation III, Level of Evidence C
   - Routine in asymptomatic individuals

Definitions:

Levels of Evidence

A. Evidence in several populations from multiple randomized clinical trials or meta-analyses
B. Evidence in a limited group of populations from single randomized clinical trial or non-randomized clinical studies
C. Evidence in very limited group of populations from consensus and experts' opinions, case reports and series

Degree/Class of Recommendation - Reflecting the Size of Treatment Effect

Degree of Recommendation I - Benefit >>> Risk; the treatment/procedure must be indicated/administered

Degree of Recommendation IIa - Benefit >> Risk; the choice for the treatment/procedure may help the patient

Degree of Recommendation IIb - Benefit > Risk; is not defined if the treatment/procedure can help the patient

Degree of Recommendation III - Risk > Benefit; the treatment/procedure must not be performed since it does not help and may be harmful for the patient

Clinical Algorithm(s)

The original guideline document contains a flowchart for perioperative evaluation.

Scope

Disease/Condition(s)

Any condition requiring surgery

Guideline Category

Evaluation

Management

Prevention

Risk Assessment

Clinical Specialty

Anesthesiology

Cardiology

Colon and Rectal Surgery

Neurological Surgery

Orthopedic Surgery

Plastic Surgery

Surgery

Thoracic Surgery

Intended Users

Physicians

Guideline Objective(s)

- To refine and unify the terminology used by the entire multidisciplinary team, including the patients and their family
- To establish new routines, change indication for surgery according to the information obtained during the perioperative evaluation
- To inform the patient and the team on the possible risks related to the intervention
- To decrease perioperative complications

Target Population

Any patient who requires surgery

Interventions and Practices Considered

1. Patient history and physical examination
2. Electrocardiogram (ECG)
3. Chest x-ray
4. Laboratory tests (full blood count, hemostasis/coagulation tests, serum creatinine)

Major Outcomes Considered

- Perioperative complications, morbidity and mortality
- Cost-effectiveness

Methodology

Methods Used to Collect/Select the Evidence

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

The databases searched were PubMed, Scielo, and Lilacs. The guideline was updated, based on the last version of the guideline, and new evidence from 2007 to 2010 was obtained. There were no specific search terms. Articles published in Portuguese and English were included.

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Levels of Evidence

A. Evidence in several populations from multiple randomized clinical trials or meta-analyses
B. Evidence in a limited group of populations from single randomized clinical trial or non-randomized clinical studies
C. Evidence in very limited group of populations from consensus and experts' opinions, case reports and series

Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review

Description of the Methods Used to Analyze the Evidence

Not stated

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Not stated

Rating Scheme for the Strength of the Recommendations

Degree/Class of Recommendation - Reflecting the Size of Treatment Effect

Degree of Recommendation I - Benefit >>> Risk; the treatment/procedure must be indicated/administered

Degree of Recommendation IIa - Benefit >> Risk; the choice for the treatment/procedure may help the patient

Degree of Recommendation IIb - Benefit > Risk; is not defined if the treatment/procedure can help the patient

Degree of Recommendation III - Risk > Benefit; the treatment/procedure must not be performed since it does not help and may be harmful for the patient

Cost Analysis

The request for laboratory tests, electrocardiogram (ECG) and radiography (X-ray) of the chest in the preoperative evaluation of patients scheduled for surgical procedures is a common and routine clinical practice. This practice has been adopted since the 1960s and was recommended for all surgical patients regardless of age, type of procedure, and surgical size, even in asymptomatic healthy patients. However, this practice is associated with a high economic cost for the health system. From the 1990s, after reviews conducted by various medical associations on this issue, the rational use of diagnostic tests has been advocated to reduce costs, since there is no evidence that routine tests performed prior the surgery are related to reduction or are predictive of perioperative complications.

Method of Guideline Validation

Peer Review

Description of Method of Guideline Validation

Not stated

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Appropriate general assessment of patients for perioperative evaluation, which may lead to reduced perioperative complications, morbidity, and mortality

Potential Harms

Not stated

Qualifying Statements

Qualifying Statements

- Data or scientific evidence are not always available to allow all the different situations to be analyzed. As customary in medical practice, minute analysis of the patient and problem and the common sense of the team must prevail.
- The surgical intervention does not finish when the patient is bandaged or leaves the operating room. The concept of the word perioperative includes the need for a postoperative surveillance whose intensity is determined by the individual level of risk of the patient.

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Clinical Algorithm

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Getting Better

Living with Illness

Staying Healthy

IOM Domain

Effectiveness

Safety

Identifying Information and Availability

Bibliographic Source(s)

Gualandro DM, Yu PC, Calderaro D, Marques AC, Pinho C, Caramelli B, et al. General assessment. In: II guidelines of perioperative evaluation. Arq Bras Cardiol. 2011;96(3 Suppl 1):4-7. [379 references]

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2007 (revised 2011)

Guideline Developer(s)

Brazilian Society of Cardiology - Medical Specialty Society

Source(s) of Funding

Brazilian Society of Cardiology

Guideline Committee

Not stated

Composition of Group That Authored the Guideline

Writing Committee Members: Danielle Menosi Gualandro, Pai Ching Yu, Daniela Calderaro, Bruno Caramelli

Task Force Members: Alina Coutinho Rodrigues Feitosa, André Coelho Marques, Bruno Caramelli, Beatriz Ayub, Carisi A. Polanczyk, Carlos Jardim, Carolina L. Zilli Vieira, Claudio Pinho, Daniela Calderaro, Danielle Menosi Gualandro, Denise Iezzi, Dimas T. Ikeoka, Dirk Schreen, Elbio Antonio D'Amico, Elcio Pfeferman, Emerson Quintino de Lima, Emmanuel de A. Burdmann, Enrique Pachon, Fabio Santana Machado, Filomena Regina Barbosa Gomes Galas, Flávio Jota de Paula, Francine Corrêa de Carvalho, Gilson Soares Feitosa-Filho, Gustavo Faibischew Prado, Heno F. Lopes, José Jaime Galvão de Lima, Julio Flavio Meirelles Marchini, Luciana S. Fornari, Luciano F. Drager, Luciano Janussi

Vacanti, Ludhmila Abrahão Hajjar, Luis Eduardo P. Rohde, Luís Henrique Gowdak, Luiz Francisco Cardoso, Marcelo Luiz Campos Vieira, Maristela C. Monachini, Milena Macatrão, Pai Ching Yu, Paula Ribeiro Villaça, Pedro Silvio Farsky, Renato Delascio Lopes, Renato Scotti Bagnatori, Roberto Henrique Heinisch, Sandra F. Menosi Gualandro, Tarso Augusto Duenhas Accorsi, Walkiria Samuel Ávila, Wilson Mathias Jr.

Financial Disclosures/Conflicts of Interest

See the original guideline document for mandatory conflict of interest declaration.

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Committee on Perioperative Evaluation (CAPO), Brazilian Society of Cardiology. General approach to the patient. In: I guidelines for perioperative evaluation. Arq Bras Cardiol 2007;89(6):e175-86.

Guideline Availability

Electronic copies: Available in Portable Document Format (PDF) from the Arquivos Brasileiros de Cardiologia Web site

.

Availability of Companion Documents

None available

Patient Resources

None available

NGC Status

This NGC summary was completed by ECRI Institute on June 2, 2008. The information was verified by the guideline developer on July 2, 2008. This summary was updated by ECRI Institute on December 26, 2008 following the FDA advisory on Innohep (tinzaparin). This summary was updated by ECRI Institute on June 15, 2009 following the FDA advisory on Propylthiouracil (PTU). This summary was updated by ECRI Institute on May 27, 2010 following the revised FDA advisory on Propylthiouracil (PTU). This summary was updated by ECRI Institute on July 27, 2010 following the FDA drug safety communication on Heparin. This NGC summary was updated by ECRI Institute on November 16, 2011. The updated information was verified by the guideline developer on December 27, 2011.

Copyright Statement

Disclaimer

NGC Disclaimer

All guidelines summarized by NGC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public or private organizations, other government agencies, health care organizations or plans, and similar entities.

Guidelines represented on the NGC Web site are submitted by guideline developers, and are screened solely to determine that they meet the NGC Inclusion Criteria.

NGC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or clinical efficacy or effectiveness of the clinical practice guidelines and related materials represented on this site. Moreover, the views and opinions of developers or authors of guidelines represented on this site do not necessarily state or reflect those of NGC, AHRQ, or its contractor ECRI Institute, and inclusion or hosting of guidelines in NGC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding guideline content are directed to contact the guideline developer.